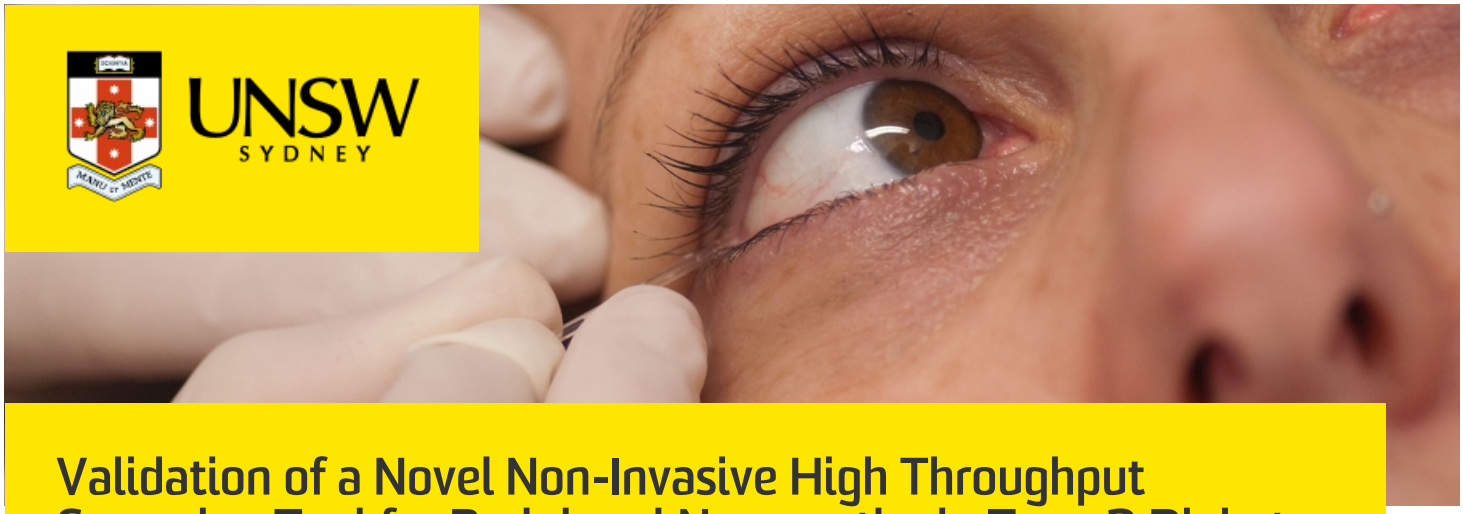

Validation of a Novel Non-Invasive High Throughput Screening Tool for Peripheral Neuropathy in Type 2 Diabetes

There is an unmet medical need for early diagnosis and monitoring of diabetic neuropathy, particularly in remote locations that do not have access to specialty care. Using the eye to monitor tear neuropeptides may allow early diagnosis and prevent complications.

Competitive advantage

- Shown that in type 1 diabetes, measuring the release of tear film neuropeptides, specifically, substance P, from corneal nerve terminals may allow us to diagnose diabetic peripheral neuropathy. Plan is to determine whether this is also the case in type 2 diabetes.

Impact

- Those with type 2 diabetes and neuropathy have an increased morbidity due to pain, foot ulceration and mortality. Identifying the conditions early and targeting them for more aggressive risk factor reduction may limit the progression of neuropathy and more severe consequences.

More Information

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Successful outcomes

- This project will translate to the development of a point-of-care assessment technique to assess the presence of diabetic peripheral neuropathy. This would involve the development of an instrument that can be used by non-specialists in remote communities and allow for referral on the basis of a positive outcome.

Capabilities and facilities

- This work is part of a collaborative effort between the School of Optometry and Vision Science, the Prince of Wales Diabetes and Endocrinology Centre and the Prince of Wales Medical School.

Our partners

- The Prince of Wales Diabetes and Endocrinology Centre
- The Prince of Wales Medical School